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| SERIAL NUMBER | FILING DATE | FIRST NAMED APPLICANT | ATTORNEY DOCKET NO. |
| 077012,205 | 02/06/87 | CHU | C CIF-80527 |

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| EXAMINER | |
| ALBRECHT, D | |
| ART UNIT | PAPER NUMBER |
| 115 | |

DATE MAILED:

02/02/88

This is a communication from the examiner in charge of your application.

COMMISSIONER OF PATENTS AND TRADEMARKS

This application has been examined Responsive to communication filed on _____ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), _____ days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. Notice of References Cited by Examiner, PTO-892. 2. Notice re Patent Drawing, PTO-948...
3. Notice of Art Cited by Applicant, PTO-1449 4. Notice of informal Patent Application, Form PTO-152
5. Information on How to Effect Drawing Changes, PTO-1474 6. _____

Part II SUMMARY OF ACTION

1. Claims 1-12 are pending in the application.

Of the above, claims _____ are withdrawn from consideration.

2. Claims _____ have been cancelled.

3. Claims _____ are allowed.

4. Claims 1-12 are rejected.

5. Claims _____ are objected to.

6. Claims _____ are subject to restriction or election requirement.

7. This application has been filed with informal drawings which are acceptable for examination purposes until such time as allowable subject matter is indicated.

8. Allowable subject matter having been indicated, formal drawings are required in response to this Office action.

9. The corrected or substitute drawings have been received on _____. These drawings are acceptable;
 not acceptable (see explanation).

10. The proposed drawing correction and/or the proposed additional or substitute sheet(s) of drawings, filed on _____
has (have) been approved by the examiner. disapproved by the examiner (see explanation).

11. The proposed drawing correction, filed _____, has been approved. disapproved (see explanation). However,
the Patent and Trademark Office no longer makes drawing changes. It is now applicant's responsibility to ensure that the drawings are
corrected. Corrections MUST be effected in accordance with the instructions set forth on the attached letter "INFORMATION ON HOW TO
EFFECT DRAWING CHANGES", PTO-1474.

12. Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has been received not been received

been filed in parent application, serial no. _____; filed on _____.

13. Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in
accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. Other

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1. This Office Action is supplemental to the Office Action mailed September 4, 1987 and the period for response to said earlier Office Action is reset to expire THREE MONTHS from the date of this letter.

2. All of the rejections of record in the Office Action mailed September 4, 1987 are maintained. The rejections below are in addition to those of the September 4, 1987 Office Action.

3. Claims 1-12 are rejected under 35 U.S.C. 112, first and second paragraphs, as the claimed invention is not described in such full, clear, concise and exact terms as to enable any person skilled in the art to make and use the same, and/or for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims are inoperatively broad when "y" is 2 or 3. See the Ryne et al. article.

4. Claims 5, 7 and 8 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103 as obvious over each of Nguyen 1981 and 1983, Provost, Michel 1984 and Shaplygin. Each of these references discloses cuprates that appear to fall within the scope of the present claims and would thus inherently exhibit superconducting properties although this characteristic was not recognized by any of the authors of these articles. It appears that the subject matter taught by these references inherently anticipates the present claims. Accordingly, the burden of proof is upon applicants to show that the instantly claimed subject matter is different from and unobvious over

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that taught by this reference. See In re Brown, 173 U.S.P.Q. 685, 688; In re Best, 195 U.S.P.Q. 430 and In re Marosi, 218 U.S.P.Q. 289, 293.

Cancelled 5. Claims 1-8 are rejected under 35 U.S.C. 103 as being unpatentable over Bednorz in view of Nguyen 1981 and 1983, Provost, Michel 1984 and Shaplygin. The secondary references are cited for the reasons discussed above in paragraph 4. Bednorz discloses the apparent superconducting properties of oxides of the type recited in the present claims or of oxides analogous thereto. Nguyen discloses analogous compounds containing Sr instead of Ba. Nguyen 1983 shows compacting under a pressure of 100 kg/mm². Michel 1984, at page 409 teaches heating at 1000°C. Shaplygin teaches compacting at a pressure of 3 ton/cm² and heating at 900-1000°C. In Figure 4 of Shaplygin it is shown that substituting various rare earth metals for La results in compositions with similar conduction properties. Accordingly, one of ordinary skill in the art would expect that substantially any of the rare earth metals including yttrium could be substituted for La in the prior art compositions with similar properties resulting. With respect to the process limitations in claims 1-4, these appear to be conventional as taught by the Nguyen, Michel and Shaplygin references.

6. Any evidence to be presented in accordance with 37 CFR 1.131 or 1.132 should be submitted before final rejection in order to be considered timely. It is

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anticipated that the next Office Action will be a final rejection.

7. An inquiry concerning this communication should be directed to Dennis L. Albrecht at telephone number (703) 557-8773.

2-2-88:cdc



DENNIS ALBRECHT
PRIMARY EXAMINER
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